

[illegible]

An asynchronous, peer-to-peer design is provided for synchronizing data on machines within a cluster using messaging. The data may be represented in memory as a document object model in secondary storage. Messaging may be handled by a messaging system with topic destinations. The design supports persistence management, locking, and transactions with rollback, and maintains a uniform state for the data across all nodes and secondary storage at all times. Furthermore, barring catastrophic failure of all machines in the cluster and secondary storage, there is no possibility of losing committed data.